## => d his

```
(FILE 'HOME' ENTERED AT 15:48:18 ON 20 AUG 2008)
     FILE 'CAPLUS' ENTERED AT 15:48:41 ON 20 AUG 2008
               E KAMACHI M/AU
             64 S E3 OR E14
L1
L2
              4 S L1 AND POLYSACCHARIDE
     FILE 'STNGUIDE' ENTERED AT 15:52:31 ON 20 AUG 2008
     FILE 'CAPLUS' ENTERED AT 15:55:08 ON 20 AUG 2008
               E KAMACHI H/AU
1.3
             50 S E3 OR E5
L4
              2 S L3 AND POLYSACCHARIDE
                E SATOH T/AU
L5
            448 S E3
               E SATOH TOSHIFUMI/AU
L6
            197 S E3
L7
           645 S L5 OR L6
            42 S L7 AND POLYSACCHARIDE
L8
L9
            32 S L8 AND ANHYDRO
L10
             29 S L9 AND PY<=2005
L11
              3 S L10 AND COSMETIC
                E KAKUCHI T/AU
L12
        717265 S E3 OR 35
L13
           374 S E3 OR E5
L14
             50 S L13 AND POLYSACCHARIDE
L15
            46 S L14 AND PY<=2005
L16
              3 S L15 AND COSMETIC
L17
              3 S L15 AND SKIN
L18
         105664 S POLYSACCHARIDE
L19
          2295 S L18 AND POLYMERIZATION
L20
           175 S L19 AND ANHYDRO
L21
             2 S L20 AND (COSMETIC OR SKIN)
=> d stat que
L18
        105664 SEA FILE=CAPLUS ABB=ON PLU=ON POLYSACCHARIDE
L19
         2295 SEA FILE-CAPLUS ABB-ON PLU-ON L18 AND POLYMERIZATION
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175 SEA FILE=CAPLUS ABB=ON PLU=ON L19 AND ANHYDRO

2 SEA FILE=CAPLUS ABB=ON PLU=ON L20 AND (COSMETIC OR SKIN)

=> log v

L20

L21

LA English FAN.CNT 1

```
=> d bib abs 1-4
        ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
L2
        2005:1103816 CAPLUS <<LOGINID::20080820>>
AN
DN
        143:388810
        Polysaccharide-based moisture retention polymer compound
IN
      Kamachi, Motoaki; Kakuchi, Tovoji; Satoh, Toshifumi
      Showa Denko K.K., Japan
      PCT Int. Appl., 41 pp.
SO
        CODEN: PIXXD2
DT
        Patent
LA
      English
FAN.CNT 1
        PATENT NO.
                                            KIND DATE
                                                                                APPLICATION NO.
                                            ----
      WO 2005095462
                                             A1 20051013 WO 2005-JP6406 20050325
PΙ
                W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
                        NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, ZW AZ, BY, KG, KZ, MD, RU, JJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, DD, SE, SI, CY, MT, DE, SI, CY, MT, CO, CM, 
                        RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
                        MR, NE, SN, TD, TG
         JP 2005314402
                                        A
                                                         20051110
                                                                              JP 2005-100361
                                                                                                                            20050331
        US 20070202070
                                             A1 20070830
                                                                               US 2006-594925
                                                                                                                            20060929
PRAI JP 2004-105931
                                                        20040331
                                             A
         US 2004-560605P
                                              P
                                                         20040409
         WO 2005-JP6406
                                             W
                                                          20050325
AR
        The present invention relates to (1) a moisture retention polymer compound
         comprising a structural unit including a multi-branched
         polysaccharide derivative in which the hydroxyl group (OH) may be
        substituted by OR wherein R represents a hydrogen atom, a hydrocarbon
         having 1 to 30 carbon atoms, or a hydrocarbon having 1 to 30 carbon atoms
         and a hetero atom, and a structural unit without a multi-branched
         polysaccharide derivative, (2) an external preparation for skin comprising
         0.1 to 99.9 % by mass of the polymer compound, which can provide moist
         feeling to the skin and exhibit an appropriate viscosity and solubility, and
         (3) a cosmetic product comprising the external preparation for skin.
RE.CNT 4
                       THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
                         ALL CITATIONS AVAILABLE IN THE RE FORMAT
L2
        ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
AN
         2005:1103542 CAPLUS <<LOGINID::20080820>>
DN
         143:372872
        Cosmetic preparation forskin moisturizing with multi-branched
         polysaccharides
        Kamachi, Motoaki; Kamachi, Harumi; Kakuchi, Toyoji; Satoh,
         Toshifumi
PA
        Showa Denko K.K., Japan
SO
        PCT Int. Appl., 44 pp.
        CODEN: PIXXD2
DT
        Patent
```

```
PATENT NO. KIND DATE APPLICATION NO. DATE
   WO 2005094777 A1 20051013 WO 2005-JP6411 20050325
PТ
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
            CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
             GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK,
             LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO,
             NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY,
             TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
         RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
             AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
             EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT,
             RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
            MR, NE, SN, TD, TG
                    Α.
     JP 2005314400
                               20051110
                                         JP 2005-100341
                                                                 20050331
PRAI JP 2004-105929
    JP 2004-105929 A 20040331
US 2004-560607P P 20040409
AB
    The present invention provides an external preparation for skin, comprising a
     multi-branched polysaccharide derivative with multi-branched
     polysaccharide skeleton consisting of saccharides as constituent
     units, wherein at least one of hydroxyl (OH) groups in the multi-branched
     polysaccharide skeleton is substituted by OR (R = H, C1-30 alkyl,
     C1-30 hetero alkyl), which can give moisture and turgor to the skin, and
     cosmetics containing the external preparation For example, polymerization of
     1,6-anhydro-3-D-glucopyranose (13 g) and propylene carbonate (12.5 mL) in
     presence of 2-butynvl-tetramethylene sulfonium hexafluoro antimonate (65.8
     μl) yielded multi-branched polysaccharide A (5.3 g; 41%). A
    skin lotion was prepared containing multi-branched polysaccharide A
     0.5%, 1,3-butylene glycol 9.5%, ethanol 39.6%, castor oil 4.9%,
     methylparaben 0.2%, and water to 45.3%. Application of the lotion to the
     skin of volunteers resulted in enhancement in skin conductivity, indicating
that
     the moisture in the keratin layer was increased to replenish the skin
    moisture.
RE.CNT 10
             THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
L2
    ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
    2005:1077880 CAPLUS <<LOGINID::20080820>>
AN
DN
    143:372846
ΤI
    Composition containing multi-branched polysaccharide/functional
     compound complex
IN
    Kamachi, Motoaki; Kamachi, Harumi; Kakuchi, Toyoji; Satoh,
    Toshifumi
PA
    Showa Denko K.K., Japan
SO U.S. Pat. Appl. Publ., 13 pp.
    CODEN: USXXCO
DT
     Patent
LA
    English
FAN.CNT 1
    PATENT NO. KIND DATE APPLICATION NO. DATE
PI US 20050220744 A1 20051006 US 2005-88794 20050325 PAI JP 2004-105930 A 20040331 US 2004-86606P P 20040409
```

The present invention provides a polysaccharide/functional compound comprising a functional compound and a multi-branched polysaccharide derivative, wherein the multi-branched

polysaccharide derivative has a skeleton of a multi-branched polysaccharide composed of a saccharide as a structural unit, and at least one of the hydroxyl groups (OH) of the multi-branched polysaccharide is substituted by OR, wherein R represents a hydrogen atom, a hydrocarbon having 1 to 30 carbon atoms, or a hydrocarbon having 1 to 30 carbon atoms and hetero atom. The functional compound can be efficiently incorporated into polysaccharide derivative, and further by exposing the polysaccharide complex to an environment such as a solution, sustained release of the functional compound can be controlled. By utilizing this property, the complex can be efficiently used in external prepns. for skin such as cosmetic products. For example, polymerization of 1,6-anhydro-β-D-glucopyranose (13 g) and dried propylene carbonate (2.5 mL) in pressence of 2-butynyl-tetramethylene sulfonium hexafluoro antimonate (65.8 µl) yielded multi-branched polysaccharide (5.3 g; 41%). The multi-branched polysaccharide (500 mg), magnesium ascorbic acid 2-phosphate (APM) (500 mg) and water (5 mL) were put into a beaker and dissolved by well stirring. The solution was freeze-dried to obtain multi-branched polysaccharide-APM complex (1.0 g). Skin lotion was prepared containing multi-branched polysaccharide-APM complex 20%, 1,3-butylene glycol 5%, Et alc. 5%, citric acid 0.01%, sodium citrate 1%, Me paraben 0.20% and purified water 68.79%.

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L2 ANSWER 4 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN
```

- AN 2005:1075594 CAPLUS <<LOGINID::20080820>>
- DN 143:352858
- TI A skin care and cosmetic preparation containing an inositol derivative
- IN Aoki, Hirobumi; Kamachi, Motoaki PA Showa Denko K. K., Japan
- SO PCT Int. Appl., 52 pp.
- CODEN: PIXXD2
- DT Patent
- LA English

	N.CNT 1 PATENT NO.					KIND		DATE		APPLICATION NO.								
PI	WO	2005092285				A1					WO 2005-JP5652				20050322			
		W:	CN, GE, LR,	CO, GH, LS,	CR, GM, LT,	CU, HR, LU,	CZ, HU, LV,	AU, DE, ID, MA, PT,	DK, IL, MD,	DM, IN, MG,	DZ, IS, MK,	EC, KE, MN,	EE, KG, MW,	EG, KP, MX,	ES, KR, MZ,	FI, KZ, NA,	GB, LC, NI,	GD, LK, NO,
		RW:	TJ, BW,	TM, GH,	TN, GM,	TR, KE,	TT,	TZ, MW, RU,	UA, MZ,	UG, NA,	US, SD,	UZ, SL,	VC, SZ,	VN, TZ,	YU, UG,	ZA, ZM,	ZM,	ZW AM,
			RO,	SE,	SI, SN,	SK, TD,	TR, TG	GR, BF,	BJ,	CF,	CG,	CI,	CM,	GA,	GN,	GQ,	GW,	ML,
	EP	1744725								EP 2005-72157								
		R:	IS,		LI,	LT,		CZ, MC,										
	CN	1933804 2005306867 20070219158			A				CN 2005-80009201						20050322			
	JP				A	20051104				JP 2005-89259					20050325			
	US				A1	20070920			US 2006-594037					20060925				
	KR	2007023684 814196				A		20070228			KR 2006-722074					20061024		
								2008										
PRAI	PRAI JP 2004							2004										
	US	2004-558551P				P		2004	0402									

WO 2005-JP5652 W 20050322

AB The present invention discloses a preparation to be applied externally to the skin which contains an inositol derivative in which an inositol and a saccharide are combined. The invention aims to provide an external skin preparation that can be spread over skin without causing a granular feeling and has excellent moisturizing effects and of keeping the skin healthy. For example, myo-inositol 1 g was reacted with β-cyclodextrin 1 g in the presence of cyclodextrin glucanotransferase to get glycosyl inositol 1.2 g. A lotion was prepared containing glucosyl inositol 1%, 1,3-butylene glycol 5%, Et alc. 5%, citric acid 0.01%, sodium citrate 1%, Me paraben 0.20% and water 87.79%.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
2 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN
    ICM A61K007-06
TC
INCL 424070100
CC
    62-4 (Essential Oils and Cosmetics)
     Section cross-reference(s): 33
    Composition containing multi-branched polysaccharide/functional
    compound complex
    polysaccharide complex prepn cosmetic
TT
     Polysaccharides, biological studies
     RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation); USES (Uses)
        (branched, multi-. complexes; cosmetic composition containing
       multi-branched polysaccharide/functional compound complex)
     Pigments, nonbiological
        (complexes with multi-branched polysaccharide derivs.;
        cosmetic composition containing multi-branched polysaccharide
        /functional compound complex)
     Cosmetics
        (emulsions; cosmetic composition containing multi-branched
       polysaccharide/functional compound complex)
     Cosmetics
        (lotions; cosmetic composition containing multi-branched
        polysaccharide/functional compound complex)
     Polysaccharides, preparation
     RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
     (Reactant or reagent)
        (multi-branched, complexes with functional groups; cosmetic
       composition containing multi-branched polysaccharide/functional compound
        complex)
     223560-77-8
     RL: CAT (Catalyst use); USES (Uses)
        (cosmetic composition containing multi-branched polysaccharide
        /functional compound complex)
     50-81-7D, Ascorbic acid, derivs.
                                       76-61-9D, Thymol blue, complexes with
    multi-branched polysaccharide derivs. 476-66-4D, Alizarin
     yellow, complexes with multi-branched polysaccharide derivs.
     547-58-0D, Methyl orange, complexes with multi-branched
     polysaccharide derivs.
                            11121-48-5D, Rose Bengal, complexes with
    multi-branched polysaccharide derivs.
                                             84309-23-9D, complexes
     with multi-branched polysaccharide derivs.
     RL: COS (Cosmetic use); BIOL (Biological study); USES (Uses)
        (cosmetic composition containing multi-branched polysaccharide
        /functional compound complex)
     108-32-7, Propylene carbonate
                                    498-07-7, 1,6-Anhydro
     -B-D-glucopyranose 64505-10-8
     RL: RCT (Reactant); RACT (Reactant or reagent)
        (cosmetic composition containing multi-branched polysaccharide
        /functional compound complex)
HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):1
     2 ANSWERS CAPLUS COPYRIGHT 2008 ACS on STN
L21
ΙĊ
     ICM A61K007-48
    62-4 (Essential Oils and Cosmetics)
     Section cross-reference(s): 33
    Cosmetic preparation forskin moisturizing with multi-branched
     polysaccharides
ST
    branched polysaccharide prepn cosmetic moisturizer
ΙT
    Polymerization
```

(anionic; cosmetic moisturizers containing multi-branched polysaccharides)

T Polysaccharides, biological studies

RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(branched; cosmetic moisturizers containing multi-branched polysaccharides)

IT Polymerization

(cationic; cosmetic moisturizers containing multi-branched polysaccharides)

Human

(cosmetic moisturizers containing multi-branched

polysaccharides)

IT Cosmetics

(moisturizers, lotions; cosmetic moisturizers containing multi-branched polysaccharides)

IT Cosmetics

(moisturizers; cosmetic moisturizers containing multi-branched polysaccharides)

II 108-32-7DP, Propylene carbonate, reaction products with 1,6-anhydro-β-D-glucopyranose and leucine Et esteer isocyanate 498-07-7DP, reaction products with propylene carbonate and leucine Et ester isocyanate 90609-13-5DP, reaction products with 1,6-anhydro-β-D-glucopyranose and propylene carbonate RL: COS (Cosmetic use); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation); USES (Uses) (cosmetic moisturizers containing multi-branched

polysaccharides)
II 108-32-7, Propylene carbonate 498-07-7, 1,6-Anhydro
-B-D-glucopyranose 90609-13-5
R1: RCT (Reactant); RACT (Reactant or reagent)

(cosmetic moisturizers containing multi-branched polysaccharides)

ALL ANSWERS HAVE BEEN SCANNED